IN THE CLAIMS:

1.   (Currently Amended) A recording medium used for storing data, comprising:

a digital stream generated by multiplexing a video stream and a graphics stream, wherein:

the graphics stream includes a plurality of display sets each of which is used for a graphics display;

the display set includes a ~~control segment and graphics data that is assigned an identifier; and~~ presentation composition segment and an object definition segment for providing a new graphics object to an object buffer;

if an active period of ~~the control segment in the display set overlaps with an active period of a control~~ the presentation composition segment in ~~an immediately preceding~~ the display set ~~on a reproduction time axis of the video stream, the identifier assigned to the graphics data in the display set differs from an identifier assigned to graphics data which is referenced by the control segment in the immediately preceding display set~~ overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the display set is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the succeeding display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object buffer by the display set is not updated to a different graphics object by the succeeding display set.

2.   (Currently Amended) The recording medium of Claim 1, wherein:

~~graphics generated by decoding the graphics data in the display set in a reproduction operation is stored into an object buffer;~~

the object buffer has a plurality of areas each of which is used for storing graphics generated by decoding; and

the ~~identifier assigned to the graphics data in the display set~~ <u>graphics object is assigned an identifier which</u> identifies one of the plurality of areas.

3.   (Currently Amended) The recording medium of Claim 2, wherein:

the active period of the ~~control~~ <u>presentation composition</u> segment in the display set is from a decoding start time of the ~~control~~ <u>presentation composition</u> segment in the display set to a display start time of the graphics display which is composited based on the ~~control~~ <u>presentation composition</u> segment in the display set; and

the ~~control~~ <u>presentation composition</u> segment is provided at a beginning of the display set, and includes time information showing the decoding start time and time information showing the display start time.

4.   (Currently Amended) The recording medium of Claim 3, wherein:

the ~~control~~ <u>presentation composition</u> segment is contained within one packet;

the time information showing the decoding start time is a decoding time stamp written in the packet; and

the time information showing the display start time is a presentation time stamp written in the packet.

5.   (Cancelled)

6.   (Currently Amended) A reproduction apparatus for reproducing a digital stream generated by multiplexing a video stream and a graphics stream, the reproduction apparatus comprising:

~~wherein the graphics stream includes a plurality of display sets each of which is~~

5   ~~used for a graphics display,~~

~~the display set includes a control segment and graphics data that is assigned an~~ ~~identifier,~~

~~if an active period of the control segment in the display set overlaps with an active~~ ~~period of a control segment in an immediately preceding display set on a reproduction time axis~~

10   ~~of the video stream, the identifier assigned to the graphics data in the display set differs from an~~ ~~identifier assigned to graphics data which is referenced by the control segment in the~~ ~~immediately preceding display set,~~

a video decoder operable to decode the video stream to generate a moving picture; and

15   a graphics decoder operable to decode the graphics stream to generate graphics, and overlay the graphics and the moving picture, wherein:

the graphics decoder includes an object buffer for storing the graphics generated by the decoding;

the graphics stream includes a plurality of display sets each of which includes a

20   ~~control segment and graphics data; and~~ presentation composition segment and an object definition segment for providing a new graphics object to the object buffer;

~~when processing the display set and an immediately preceding display set in a pipeline, the graphics decoder stores graphics generated by decoding the graphics data in the display set into a different area of the object buffer from graphics generated by decoding~~

25 ~~graphics data which is referenced by a control segment in the immediately preceding display set~~ if an active period of the presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the graphics decoder is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the

30 succeeding display set, by decoding the object definition segment in the display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object buffer by the display set is not updated to a different graphics object by the succeeding display set.

7.   (Currently Amended) The reproduction apparatus of Claim 6, wherein:

the graphics decoder further includes:

a processor operable to decode the ~~graphics data~~ object definition segment in the display set to generate the graphics object, and write the graphics object to the object buffer; and

5   a controller operable to read a graphics object ~~generated by decoding graphics data referenced by the control segment in the display set~~ from the object buffer, and overlay the read graphics object and the moving picture; and

~~in the pipeline processing, the processor~~ the graphics decoder writes [[the]] a graphics object ~~generated by decoding the graphics data~~ in the succeeding display set to the

10   object buffer, whilst simultaneously ~~the controller reads~~ reading the graphics object ~~generated by~~ ~~decoding the graphics data referenced by the control segment~~ in the ~~immediately preceding~~ display set from the object buffer, to execute pipeline processing.

8.   (Currently Amended) The reproduction apparatus of Claim 7, wherein:

the ~~control~~ presentation composition segment in the display set is provided at a beginning of the display set;

the controller decodes the ~~control~~ presentation composition segment, and, in accordance with a decoding result of the ~~control~~ presentation composition segment, reads the graphics object from the object buffer and displays the read graphics object.

9.   (Currently Amended) The reproduction apparatus of Claim 8, wherein:

the ~~control~~ presentation composition segment is contained within one packet; and

the ~~controller~~ processor starts the decoding ~~the control segment~~ at a time shown by a decoding time stamp written in the packet, and the controller starts the displaying ~~the~~ ~~graphics~~ at a time shown by a presentation time stamp written in the packet.

10.   (Currently Amended) The reproduction apparatus of Claim 6, wherein:

if the graphics [[data]] object in the display set has a different identifier from [[the]] a graphics ~~data referenced by the control segment~~ object in the ~~immediately preceding~~ succeeding display set, the graphics decoder stores the graphics ~~generated by decoding the~~ ~~graphics data~~ object in the succeeding display set into [[the]] a different area of the object buffer from the graphics ~~generated by decoding the referenced graphics data~~ object in the display set; and

if the graphics [[data]] <u>object</u> in the display set has a same identifier as the ~~referenced graphics data~~ <u>graphics object in the succeeding display set</u>, the graphics decoder stores the graphics ~~generated by decoding the graphics data~~ <u>object</u> in the <u>succeeding</u> display set into a same area of the object buffer as the graphics ~~generated by decoding the referenced graphics data~~ <u>object in the display set</u>, so as to overwrite the graphics ~~generated by decoding the referenced graphics data~~ <u>object in the display set</u>.

11.   (Cancelled)

12.   (Currently Amended) A method of recording onto a recording medium, comprising the steps of:

generating application data; and

recording the application data to the recording medium, wherein:

the application data includes a digital stream generated by multiplexing a video stream and a graphics stream;

the graphics stream includes a plurality of display sets each of which is used for a graphics display;

the display set includes ~~a control segment and graphics data that is assigned an identifier; and~~ <u>a presentation composition segment and an object definition segment for providing a new graphics object to an object buffer;</u>

if an active period of the ~~control segment in the display set overlaps with an active period of a control segment in an immediately preceding display set on a reproduction time axis of the video stream, the identifier assigned to the graphics data in the display set differs from an identifier assigned to graphics data which is referenced by the control segment in the~~

immediately preceding display set presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the display set is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the succeeding display set, if a predetermined condition is satisfied; and

   the predetermined condition is that the graphics object provided to the object buffer by the display set is not updated to a different graphics object by the succeeding display set.

   13. (Currently Amended) A computer-readable program used for enabling a computer to reproduce a digital stream generated by multiplexing a video stream and a graphics stream, the program enabling the computer to perform the steps of:

   wherein the graphics stream includes a plurality of display sets each of which is used for a graphics display,

   the display set includes a control segment and graphics data that is assigned an identifier,

   if an active period of the control segment in the display set overlaps with an active period of a control segment in an immediately preceding display set on a reproduction time axis of the video stream, the identifier assigned to the graphics data in the display set differs from an identifier assigned to graphics data which is referenced by the control segment in the immediately preceding display set,

   decoding the video stream to generate a moving picture; and

decoding the graphics stream to generate graphics, and overlaying the graphics

15   and the moving picture, wherein:

the graphics stream includes a plurality of display sets each of which includes a

~~control segment and graphics data; and~~ presentation composition segment and an object

definition segment for providing a new graphics object to an object buffer;

~~when processing the display set and an immediately preceding display set in a~~

20   ~~pipeline, the step of decoding the graphics stream stores graphics generated by decoding the~~

~~graphics data in the display set into a different area of an object buffer from graphics generated~~

~~by decoding graphics data which is referenced by a control segment in the immediately~~

~~preceding display set~~ if an active period of the presentation composition segment in the display

set overlaps with an active period of a presentation composition segment in a succeeding display

25   set on a reproduction time axis of the video stream, the step of decoding the graphics stream is

able to provide, to the object buffer, a graphics object that is to be referenced by the presentation

composition segment in the succeeding display set, by decoding the object definition segment in

the display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object

30   buffer by the display set is not updated to a different graphics object by the succeeding display

set.

14.   (Currently Amended) A method of reproducing a digital stream generated by

multiplexing a video stream and a graphics stream, the method comprising the steps of:

~~wherein the graphics steam includes a plurality of display sets each of which is~~

~~used for a graphics display;~~

5 ~~the display set includes a control segment and graphics data that is assigned an identifier,~~

~~if an active period of the control segment in the display set overlaps with an active period of a control segment in an immediately preceding display set on a reproduction time axis~~

~~of the video stream, the identifier assigned to the graphics data in the display set differs from an~~

10 ~~identifier assigned to graphics data which is referenced by the control segment in the immediately preceding display set,~~

decoding the video stream to generate a moving picture; and

decoding the graphics stream to generate graphics, and overlaying the graphics and the moving picture, wherein:

15 the graphics stream includes a plurality of display sets each of which includes a ~~control segment and graphics data; and~~ presentation composition segment and an object definition segment for providing a new graphics object to an object buffer;

~~when processing the display set and an immediately preceding display set in a pipeline, the step of decoding the graphics stream stores graphics generated by decoding the~~

20 ~~graphics data in the display set into a different area of an object buffer from graphics generated by decoding graphics data which is referenced by a control segment in the immediately preceding display set~~ if an active period of the presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the step of decoding the graphics stream is

25 able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the succeeding display set, by decoding the object definition segment in the display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object

buffer by the display set is not updated to a different graphics object by the succeeding display

30   set.